## GENERAL MOTORS CORPORATION

EXECUTIVE ORDER A-006-1662 New Engines for Diesel or Incomplete Medium-Duty Vehicles

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: The engine and emission control systems produced by the manufacturer are certified as described below for use in diesel or incomplete medium-duty vehicles with a manufacturer's GVWR from 8501 to 14000 pounds. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	EMISSION STD CATEGORY 2	FUEL TYPE 1	STANDARDS & TEST PROCEDURE	ENGINE SIZES (L)	ECS & SPECIAL FEATURE	RES 3	OBD COMPLIANCE OBD(F)	
2010	AGMXE04.8581	ULEV	Gasoline	Otto	4.8	2TWC, 2HO2S(2), SFI			
ENGINE MODELS / CODES (rated power, in hp)  L20 / 10 (279), 20 (258), 30 (264)								OBD COMPLIANCE	
	( <u>L)</u> 4.8	OBD(F)							
	···						+	*	
							*	•	
CNG/LI SULEV ECS=er iensor; HA SCARB=or	NG=compressed/liquefied in / ULEV / LEV=super uttra mission control system; TV IFS/AFS=heated/air-fuel-ra assous radurator IDI/IDI	natural gas; LPG=lique / uttra / low emission vo /C/OC=three-way/oxidi tilo sensor (a.k.a., unive =indirect/direct discal i	fied petroleum gas; E85=85° shicle; zing catalyst; WU (prefix) = stand or linear oxygen sensol predion: TCISC	% ethanol fuel; MF=rr warm-up catalyst; DP r), TB!=throttle body f	rulti fuel a.k.a BF: F=diesel particula uel injection; SF/	R 86.abc=Title 40, Code of Federal is still fuel; DF=dual fuel; FF=flexible fuel de filter; PTOX=periodic trap oxidizer MFI=sequential/multi port fuel injectic exhaust gas recirculation; PAIR/AII control module; EM=engine modificat	il; ; HO25/O25 in; DGI=dire	(2006 Dec21) =heated/oxygen ct gasoline injection:	

Following are: 1) the FTP exhaust emission standards or family emission limit(s) as applicable under 13 CCR 1956.8; 2) the EURO and NTE limits under the applicable California exhaust emission standards and test procedures for heavy-duty diesel engines and vehicles (Test Procedures); and 3) the corresponding certification levels, in g/bhp-hr, for this engine family. "Diesel" CO, EURO and NTE certification compliance may have been demonstrated by the manufacturer as provided under the applicable Test Procedures in lieu of testing. (For dual- and flexible-fueled engines, the CERT values in

	NMHC		NOx		NMHC+NOx	co	PM		нсно			
	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO
STD	*	•	*	*	*	*	14.4	*	0.01	<del>-</del>	0.01	*
FEL	0.28	*	0.68	•	*	•	*	•	*	•	*	*
CERT	0.14	*	0.56	*	*	*	5.4	*	+	-	0.001	*
NTE		*		-		*		<u>+</u>		<del>!</del>	0.001	

**BE IT FURTHER RESOLVED:** Certification to the FEL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(s) is the emission level declared by the manufacturer and serves in lieu of an emission standard for certification purposes in any averaging, banking, or trading (ABT) programs. It will be used for determining compliance of any engine in this family and compliance with such ABT programs.

BE IT FURTHER RESOLVED: The listed engine models have been certified to the optional emission standards and test procedures in 13 CCR 1956.8 applicable to diesel or incomplete medium-duty vehicles with a GVWR from 8501 to 14000 pounds and, therefore, shall be subject to 13 CCR 2139(c) (in-use testing of engines certified for use in diesel or incomplete medium-duty vehicles with a 8501-14000 pound GVWR).

**BE IT FURTHER RESOLVED:** For the listed engine models the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels), 13 CCR 1968.2 (on-board diagnostic, full or partial compliance), and 13 CCR 2035 et seq. (emission control warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this \_\_\_\_\_\_ day of May 2009.

Annette Hebert, Chief

Mobile Source Operations Division